

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Service Rules for the 698-746,)	WT Docket No. 06-150
747-762, and 777-792 MHZ Bands)	
)	
Implementing a Nationwide, Broadband,)	
Interoperable Public Safety Network in the)	PS Docket No. 06-229
700 MHZ Band)	
)	
Implementation of the Commercial Spectrum)	
Enhancement Act and Modernization of the)	WT Docket No. 05-211
Commission's Competitive Bidding Rules and)	
Procedures)	
)	
Development of Operational, Technical, and)	
Spectrum Requirements for Meeting Federal,)	WT Docket No. 96-86
State and Local Public Safety Communications)	
Requirements Through 2010)	

***EX PARTE* COMMENTS OF
THE *AD HOC* PUBLIC INTEREST SPECTRUM COALITION**

CONSUMER FEDERATION OF AMERICA
CONSUMERS UNION
FREE PRESS
MEDIA ACCESS PROJECT
NEW AMERICA FOUNDATION
PUBLIC KNOWLEDGE

April 5, 2007

SUMMARY

The auction of licenses in the 700 MHz band presents the Commission with a unique and critical opportunity to bring broadband to American consumers and to open an avenue for competitive broadband providers. The upcoming 700 MHz auction is, without question, the best opportunity to open a legitimate “third pipe” for consumer broadband connectivity—long a goal of the Commission. Given the state of the market failure in US broadband and our unenviable position relative to international performance in broadband connections, a pro-competitive policy in the 700 MHz auction is imperative.

The groups who have joined together in this “*Ad Hoc* Public Interest Spectrum Coalition” urge the FCC to adopt our recommendations in order to maximize the opportunities for new, competitive entrants and promote greater broadband access in the United States. We recommend that the FCC require that a portion of the auctioned licenses be subject to a service condition of open access. This will create a competitive retail market for wireless broadband services in a national marketplace. It will bring innovative, competitive providers into the market that would otherwise never appear.

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To: The Commission:

Consumer Federation of America, Consumers Union, Free Press, Media Access Project, New America Foundation and Public Knowledge (collectively referred to here as the “Public Interest Spectrum Coalition” or “PISC”), file these *ex parte* comments urging the Federal Communications Commission (“FCC” or “Commission”) to condition the award of licenses for at least half of the 700 MHz band on the licensees’ compliance with open access principles.

The auction of licenses in the 700 MHz band is a unique and critical opportunity to bring broadband to American consumers and open an avenue for competitive broadband providers. It

is without question the best opportunity to open a legitimate “third pipe” for consumer broadband connectivity—long a goal of the Commission. Given the state of the market failure in US broadband and our unenviable position relative to international performance in broadband connections, a pro-competitive policy in the 700 MHz auction is imperative.

The undersigned public interest groups urge the FCC to adopt our recommendations in order to maximize the opportunities for new, competitive entrants and promote greater broadband access in the United States. We recommend that the FCC require that a portion of the auctioned licenses be subject to a service condition of open access. This will create a competitive retail market for wireless broadband services in a national marketplace. It will bring innovative, competitive providers into the market that would otherwise never appear.

ARGUMENT

I. THE US BROADBAND MARKET REQUIRES POLICIES THAT PROMOTE GREATER COMPETITION TO IMPROVE ACCESS, PRICES, AND PERFORMANCE

The United States continues to fall further behind the rest of the world in broadband Internet access – our markets lack the competition necessary to serve consumers with lower prices, faster speeds and universal access. Even as the broadband market has further consolidated—leaving 96% of the market in the hands of two technologies—our policy framework has only served to diminish opportunities for competition. Meanwhile, Americans pay more money for a lower quality of service than a dozen other nations. Far too many Americans remain stuck with dial-up Internet access or no Internet access at all. Americans cannot hope to have what other nations enjoy: a selection of truly high-speed, competitively priced broadband providers in every local market.

The primary difference between our broadband failures and international broadband successes comes down to policy choices. Better broadband policies in the rest of the world have led other countries to much higher levels of market competition, which in turn has resulted in lower prices, better service and higher overall adoption rates. Countries with the open access policies of local-loop unbundling, line-sharing, and bitstream access have significantly higher DSL penetration levels than countries without these policies.¹ The United States wireline broadband market has been stripped of its open access requirements, and there is little opportunity for competitive providers to compete with the large incumbents. The auction of the 700 MHz spectrum creates a new possibility for competitive broadband provision. But if the FCC does not require compliance with an open access principle for at least a portion of the auctioned spectrum, this rare opportunity for broadband competition will be squandered. It is imperative that we learn the lessons of the wireline market and make the appropriate policy corrections in the launch of the most promising wireless broadband markets.

Wireless broadband has not been a useful “third pipe” and will not be in the near future if this spectrum is auctioned to the very same vertically integrated telephone and cable incumbents that dominate the wireline market. Around 96 percent of residential broadband connections are DSL or cable modem. Satellite accounts for less than one-half of 1 percent (0.5%) of all advanced service residential broadband connections. Mobile wireless accounts for 2.5 percent of all advanced service residential broadband connections. Fixed wireless comprises approximately one-half of 1 percent (0.5%). In addition, 90 percent of mobile wireless broadband connections are used by businesses, not consumers. And almost 85 percent of mobile wireless lines exceed

¹ See “High-Speed Services for Internet Access: Status as of June 30, 2006”, Federal Communications Commission, Industry Analysis and Technology Division Wireline Competition Bureau, January 2007

200 kilobits per second in only *one* direction. The marketshare for these alternatives to the DSL and cable modem models actually decreased from 2000 to 2005.²

Much has been made of the FCC's recent broadband data showing the mobile wireless broadband connections have dramatically increased. Indeed, around 60% of the new residential lines counted in the FCC's most recent report were wireless connections. However, this is highly misleading as a measure of whether wireless broadband is now competing directly with the dominant wireline technologies, DSL and cable modem. For the most part, the new wireless lines are broadband capable cellular phones or other handheld devices. These connections are at least twice the price of a wireline connection and most operate at only a fraction of the speed. Tellingly, virtually no residential consumers of broadband have cancelled their subscriptions to wireline connections to substitute the use of a broadband capable cellular telephone. These devices are *not* substitutes or competitive alternatives to DSL and cable modem. They offer different services that are designed to be purchased *in addition* to a wireline residential broadband connection. Digging down below the surface, the data show the truth. Of all the advanced service lines (200 kbps in both directions) counted by the FCC, only 3.8% are mobile wireless. Only 2.5% of residential advanced service lines are mobile wireless.

Perhaps most importantly, this market for broadband capable mobile devices is dominated by the same incumbent firms that control the wireline broadband market. This is neither the presence of nor the recipe for broadband competition. It is clear that a substantial change in the marketplace is required if a wireless "third pipe"— a substitutable competitor to DSL and cable modem service — is to be created. The 700 MHz auction offers that opportunity if we make the policy choices necessary to seize it.

² See S. Derek Turner, *Broadband Reality Check II*, August 2006, available at <http://www.freepress.net/docs/bbrc2-final.pdf>

II. THE 700 MHz AUCTION REPRESENTS THE BEST CHANCE TO CREATE A VIABLE “THIRD PIPE” FOR CONSUMER BROADBAND COMPETITION

The auction of the 700 MHz band represents the best opportunity in the foreseeable future to bring a legitimate “third pipe” into the US broadband market. But it is by no means a certainty that this result will be achieved. Previous auctions, such as the Advanced Wireless Services (AWS) auction, resulted in a set of dominant bids by the incumbent wireline providers of broadband services—in particular AT&T and Verizon. The products provided by these companies (such as mobile video) are welcomed by consumers, but these firms are unlikely to bring to the market a truly substitutable product to compete with DSL and cable modem, the technologies that currently hold 96% of the residential broadband market. They have not done so with their current wireless broadband offerings, and they have an incentive *not* to cannibalize their own wireline broadband product market. We should not expect them to do so. Vertically integrated incumbents will have no incentive to open their networks and will continue to offer packages of services that seek to leverage their market power across adjacent markets. Any policy that opens the door to incumbent dominance of 700 MHz in anticipation of increased broadband competition is irrational.

The spectrum up for auction in this proceeding is uniquely suited to become the “third pipe” alternative. Because of the favorable propagation characteristics of this spectrum, signals can relatively easily penetrate dense foliage, reach the interior spaces of buildings and cost-effectively cover large, less densely populated areas. In other words, it can be used to deliver affordable wireless broadband services to areas currently underserved by incumbent broadband providers using either wired or wireless technologies. The 700 MHz band could provide Internet access that is faster and cheaper than existing wireless services, combined with a mobility that provides a significant advantage over existing wireline services. Rather than serving a “niche”

market, services in the 700 MHz band could become many consumers' primary source of high speed Internet access and low-cost voice service.

Finding the shortest route to operationalize a bona fide "third pipe" has long been the elusive goal of US broadband policy. It is imperative that the service rules in the 700 MHz band guarantee the entrance of new competitors into the residential broadband market. No policy priority could be more urgent to the nation's broadband future. Maximizing competition in wireless broadband services must be the first goal of this auction.

Competition policy may be directed at different layers of the network. Recent papers³ have persuasively demonstrated that consumers' rights to choose equipment, applications and services that best meet their individual needs have not been well served by the market. Indeed, consumers' ability to access lawful content anywhere on the Internet is in jeopardy as incumbent broadband Internet service providers (wireless broadband providers, as well as cable and telephone companies) take steps to extend their control into adjacent markets for content in violation of established principles of consumer choice and openness. At the very least, a simple nondiscrimination principle (or "network neutrality") should be applied at the application layer of services offered with 700 MHz licenses.

Beyond that, the Commission should apply competition policy to the transmission layer of the 700 MHz networks by requiring open access as a condition of license. This is the competition policy that has proven most successful in advantaging the broadband markets of the world's leaders. This is the competition policy that will ensure multiple providers of competitive services will go head to head to win business from consumers. This is the competition policy

³ See Tim Wu, *Wireless Net Neutrality: Cellular Carterfone and Consumer Choice in Mobile Broadband*, Feb. 2007, available at http://www.newamerica.net/files/WorkingPaper17_WirelessNetNeutrality_Wu.pdf ; "Good Fences Make Bad Broadband," a Public Knowledge White Paper, by John Windhausen, Jr., February 6, 2006, available at <http://www.publicknowledge.org/content/papers/pk-net-neutrality-whitep-20060206>.

that the public deserves to see applied to the public airwaves to maximize social and economic value.

III. THE COMMISSION SHOULD ASSIGN OPEN ACCESS CONDITIONS TO THREE LICENSE BLOCKS IN THE 700 MHz AUCTION

The recent history of the American and the global broadband market should serve as a guide to inform the most appropriate policies for enhancing competition. Two policies stand out as exemplary in promoting broadband expansion, price discipline, and enhanced quality of service: unlicensed spectrum and open access to the transmission layer of networks. The explosion of innovation in the unlicensed WiFi bands has been the most important development in the broadband market in recent years. Yet the opportunity to apply a policy of unlicensed innovation to the 700 MHz band has been precluded by Congress. To realize the public interest benefits that might be made available as a result of the digital transition require far more aggressive policy proposals than we are submitting here.

This leaves us with open access policy. This is the principle that led the United States to world leadership in communications and this is very likely the only principle that can restore the U. S. to its leadership position. Ironically, the open access system designed in the US in the 1990s has been adopted in the European market even as we have abandoned it. The result in Europe has been the expansion of broadband competition, the enhancement of speeds, and the decline of prices. Many urban markets enjoy several wireline providers offering competing services on the same facilities. It is a consumer paradise by comparison to the US. Here at home, we have witnessed a relative stagnation in broadband development. Our markets are dominated by two wireline technologies with little to no competition. It is an issue that begs for attention in the wireline policy arena. Since an opportunity for the broader application of open access prin-

ciples to communications networks is unavailable or unrealized, it is imperative that the Commission seize the opportunity to apply it to at least some portion of the 700 MHz band.

Our preference standing on principle would be to see all of the spectrum blocks up for auction in the 700 MHz band be made available on an open access basis. However, we recognize that competing interests for this valuable spectrum will foreclose that option. We note that Frontline Wireless, LLC (hereafter “Frontline”) has proposed a reorganization of the 700 MHz spectrum that will establish one block where these principles apply. We support the application of these open access principles to any and all portions of this band, noting that this will promote principles of competition through access to the transmission layer. In addition, open access will facilitate the use of cognitive radios in *ad hoc* mesh networks by making available spectrum for innovative competitors to shape through their business model of choice.

Imposing open access conditions on some portion of the 700 MHz band ensures at least one open access network will be available nationwide to check the wireline carriers who are pushing for discriminatory networks. Although not as effective as a requirement that all communications networks be operated in a non-discriminatory manner, the nationwide open wireless network would provide a safety valve. Should the incumbents go too far in discrimination (and we believe that they have every incentive to do so) the nationwide open wireless network would provide a refuge for consumers and ISPs who are being abused. Further, the open access sector of the 700 MHz band would produce the kind of competition that drives innovation, lowers prices, and enhances services.

We respectfully request that the Commission, in the final order adopting service rules for the 60 MHz of spectrum to be auctioned in the 700 MHz band, designate at least three license blocks (or 30 MHz, whichever is greater) as “open access” blocks. In these spectrum blocks, all

licensees should be required, as a condition of their respective licenses, to construct and operate wireless broadband systems that comply with open access principles.⁴ The open access licenses, as well as the licenses to be auctioned for the remaining 700 MHz spectrum, would be subject to the build-out requirements and other service rules that the Commission adopts in the current rulemaking.

The undersigned parties support the open access model in the service rules recently proposed by Frontline and believe this would be a step in the right direction. The open access portion of the Frontline proposal should be the minimum standard adopted by the Commission. Frontline proposes a wholesale-only model for a proposed nationwide “E Block” license that would build a system to be shared with public safety agencies using the adjacent spectrum. Open access to the 24 MHz operated by the national emergency broadband network ensures at least one open access network will be available nationwide. Frontline proposes that the E Block Licensee be generally prohibited from blocking users’ access to services or content provided by unaffiliated parties⁵ and be obligated to offer QoS capabilities to all content, application and service providers on a reasonable and non-discriminatory basis.⁶ Frontline also proposes that the E Block Licensee be required to provide roaming to requesting CMRS operators whose customers are using compatible equipment.⁷ Finally, Frontline proposes that the E Block Licensee would not be permitted to block the connection of terminal equipment to the network, so long as the equipment complies with relevant technical specifications and does not pose a risk of harm to the network or to uses of the network.⁸

⁴ See the attached “Appendix: Open Access Principles for 700 MHz Spectrum” for a more detailed description of the open access principles we espouse.

⁵ Proposed rule section 27.16 (a)(3)

⁶ Id.

⁷ Proposed rule section 27.16 (a)(5).

⁸ Proposed rule Section 27.51 (c).

In our view, Frontline’s proposal does not go far enough. Under the most optimistic timetable, the Frontline proposal would take several years for a nationwide licensee to build out a footprint large enough to give retail service providers and their customers a viable “third pipe” Internet access infrastructure. Moreover, there is no guarantee that a single nationwide wireless broadband network licensee can effectively reverse the current trend toward reduction of consumer choice in content, devices, applications and services.

We believe that the Commission would disserve the interests of consumers generally if it were to follow the same course that it has taken in recent auctions of CMRS spectrum, relying largely on market forces to deliver services that consumers want and need in a timely and affordable fashion. Likewise, we believe that there is no assurance that reliance on a single “open access” licensee would suffice to meet the Commission’s obligation to ensure the availability of rapid and efficient broadband communications to all Americans.

CONCLUSION

The Commission should designate two additional spectrum blocks, totaling 30 MHz or one-half of the 60 MHz to be licensed in the upcoming auction as “open access” spectrum. By announcing the designation of certain blocks as “open access” well in advance of the commencement of the auction, the Commission would provide prospective bidders sufficient time to develop business plans and bidding strategies, including whether to bid on one or more of the “open access” blocks and/or the remaining spectrum blocks to be auctioned under either traditional CMRS rules or a “flexible use” regime.

By proposing the creation of “open access” spectrum blocks, the FCC would ensure that the licensee opens its airwaves to competition. The FCC may even find that requiring open access for a portion of the 700 MHz spectrum may be more efficient than issuing numerous li-

censes. This is the path toward creating a viable “third pipe”, a wireless broadband competitor that can challenge the market dominance of cable modem and DSL services with a comparable and substitutable product.

The Commission faces a difficult set of decisions in this proceeding as it strives to strike an appropriate balance between the wireless incumbents and potential new entrants. We believe that this balance can best be achieved by auctioning half of the spectrum under a conventional flexible use set of service rules and half under an “open access” regime.

Respectfully submitted,

CONSUMER FEDERATION OF AMERICA
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FREE PRESS
MEDIA ACCESS PROJECT
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PUBLIC KNOWLEDGE

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Appendix: Open Access Principles for 700 MHz Spectrum

The “open access” model, as traditionally applied to the telephone and cable television industries, necessitated the specification of one or more physical locations, such as a tandem switch or cable system headend, where competing service providers could interconnect with the incumbent facilities-based provider. We assume, for purposes of this statement of principles, that licensees of 700 MHz spectrum will deploy wireless broadband networks that are compatible with the TCP/IP protocol stack (otherwise known as “IP-compatible” or “IP-based” networks). Accordingly, we believe it is sufficient for 21st Century purposes, to define “open access” in terms of interfaces that are to be provided by the network owner at the higher layers of the protocol stack (roughly, the network, application and content layers). Thus, it is not necessary for the Commission to specify the geographic locations or the electrical or mechanical interfaces that would be necessary if interconnection were to occur at the physical layer. In broad terms, open access in the wireless broadband environment means that content, application and service providers and consumers are able to reach one another on a transparent basis, without regard to whether the underlying network infrastructure conforms to GSM, WCDMA, WiMAX or some other air interface specification.

We do not intend to require licensees in those blocks to conform to any particular business model. In particular, we would not propose that licensees necessarily be limited to a “wholesale only” business model, or that “open access” licensees outside the E Block be obligated to make their spectrum and facilities available for shared use with public safety entities. Rather, the Commission should announce that it will condition the licenses to be awarded in the designated “open access” blocks as follows:

1. Licensees of “open access” spectrum in the 700 MHz band must provide broadband Internet access service on a non-discriminatory basis in a manner that enables:

- any customer to attach any compatible device to any wireless broadband network in the 700 MHz band using standard and non-proprietary interfaces, subject only to minimal “do-no-harm” requirements; and
- any customer to reach any web site, post any information, provide any service, access or provide any application, without degradation, prioritization or interference by the network operator.

2. Licensees of “open access” spectrum in the 700 MHz band may elect to provide service on a wholesale-only basis, or they may choose to provide retail services through a separate affiliate. If the licensee is a new entrant and chooses to provide retail services through a structurally separate affiliate, it should be required to make at least fifty (50) percent of its total capacity available at all times to unaffiliated retail service providers. If the licensee is an incumbent spectrum holder in the same service territory and opts to provide retail service through a separate affiliate, the percentage of spectrum it could reserve for its own use would drop to 25%, with 75% available at all times for non-affiliated retailers. Bandwidth should be made available upon reasonable request to any unaffiliated retail service provider. The licensee may not require the

unaffiliated retailers to distribute either the licensee's content or its end-user equipment. However, any volume discount or promotional pricing of content or end-user equipment that is extended by the licensee to its separate affiliate must be likewise available to unaffiliated retailers.

3. Licensees of "open access" spectrum in the 700 MHz band, whether offering retail or wholesale services, must fully and clearly disclose to their customers all material terms and conditions of service, including coverage area and the available upstream and downstream speeds. If the licensee offers retail services through a separate affiliate, the affiliate must provide current customers with actual notice of any material change in the price or other terms and conditions of service, and provide those customers with an opportunity to cancel without penalty.